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# Needed: Hypertension Research for Mexican-Americans

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HYPERTENSION AFFLICTS MILLIONS of persons and contributes extensively to morbidity, disability, and premature death. National statistics show that the death rates due to hypertensive heart disease per 100,000 population by age, sex, and country of birth demonstrated a difference between U.S.-born and Mexican-born persons of both sexes (1). Despite the pervasiveness of this disease, little is known about hypertension among Mexican-Americans, the second largest minority in the United States. Research on hypertension has neglected this significant and large population. The California Department of Health concurs; a 1976 health department report states, "Since most of the interest has been in observing black and white differentials, very little is known of other racial and ethnic groups" (2).

My purpose is to describe health studies of Mexican-Americans, critique the only study of hypertension among this population, and give the kind of knowledge base necessary to further study the health problems of the Mexican-American.

## A Statistical Picture

The Mexican-American population represents the second largest identifiable minority group in the United States and the largest in the Southwest. Demographers project that Hispanic Americans will constitute the largest minority group in the country by the 1980s (3). Population statistics in the Agenda, a national publication that provides a forum for research and issues

of concern to the Hispanic-American population, point to the same conclusion. Using various statistical references from many national Hispanic organizations, the Agenda estimates the nation's Mexican-American population to be more than 15 million (4), compared with the 11.2 million figure given by the Bureau of the Census for March 1975 (5). In California alone, their number is estimated to be 3,179,000, and Los Angeles County numbers 1,890,000 Mexican-Americans among its residents (6).

Los Angeles statistics indicate the urban density of the Mexican-American population. More than 80 percent of the Mexican-Americans in Los Angeles County live in urban areas, where they are employed in blue collar jobs—both factors that make them high risks for hypertensive heart disease (6). Their below-poverty-level incomes ensure that they will only infrequently see a physician, and therefore the scope of the hypertension problems among Mexican-Americans remain invisible. A comparison of Mexican-Americans and whites for 1974 provides the telling statistic concerning the "invisible" hypertension of Mexican-Americans: 8.9 percent of whites reported below-poverty-level incomes, compared to 23.2 percent of persons of Spanish origin (5).

Other statistical comparisons between Mexican-Americans and whites show a discrepancy between the youthful Mexican-American population and its mortality rate. Analysis of the age distribution shows the Mexican-American group to be younger than the white population. The median age of Mexican-Americans is 20.7 years compared to the 28.6 years for the overall population, yet Mexican-Americans have a higher than average mortality rate (5). The 1975 census report showed that the proportion of Mexican-Americans 65 or over was only 4 percent compared to 10 percent for the overall population (5). Bearing in mind the high mortality rate and the lower-than-poverty income

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levels of the large, urban Mexican-American population that are concentrated in blue collar jobs, we will look at studies of health status and hypertension among Mexican-Americans.

### **Health Status**

In my opinion, two decisive factors make Mexican-Americans high-risk candidates for hypertension—their low socioeconomic status and the barriers erected against them by the health care system. As pointed out previously, Mexican-Americans fall far short of the white population in both income and health status. Aranda's investigation of the Los Angeles health system showed the morbidity and mortality rates among Mexican-Americans to be two to three times higher than in the white population (7).

Aranda reports that the rate of incidence of circulatory diseases is higher in East Los Angeles, a predominantly Mexican-American area, than in any other Los Angeles County Health District. Despite this high incidence of disease, the population of East Los Angeles and other Mexican-American health districts, had low rates of medical visits and hospital admissions (7).

The low rate of utilization of hospital and medical services within the Mexican-American community may, in part, be attributed to the barriers within the health care system. The Spanish-speaking Mexican-Americans face a language barrier in clinics whose staffs do not include a proportionate number of bilingual, bicultural workers. Immigration problems (or the fear or threat of them) compound the difficulties of seeking medical attention, and restrictions on citizenship make some members of this group ineligible for public health and welfare benefits.

### **Health Studies**

Weaver provides a useful categorization of research on Mexican-American health care behavior. He describes

three generations of research orientation: 1940 anthropological, 1950 parochial (narrow or confined to a small area), 1960 emergence of the Chicano (8). The authors of all three generations of research publications find cultural barriers to the effective utilization of modern health care among Mexican-Americans. I will focus here on the research studies done on the accessibility of health care services.

Cervantes (9) holds that stereotypes of Mexican-Americans provide an excuse for the health care system to ignore Mexican-American health care needs. The health care system fails to attend to these needs because of the stereotype that Mexican-Americans prefer their traditional folk culture practices, such as the use of curanderos and brujas (healers) and herbal remedies, to modern medical practice.

Martin and Martinez take up the question of Mexican-American reliance on traditional folk culture practices in their studies of the Chicano health care system. They conclude that "Participation in the system of folk beliefs and curative practices by no means precludes reliance upon physicians and use of medical services and health problems not defined by folk concepts" (10). Many Mexican-Americans participate in the two systems of health care. In 1966, Martin and Martinez advocated a reconciliation of the systems if health care is to be effective. Health services in the Chicano community must be personalized, relevant, and reflective of the culture of the Mexican-American community.

More recent research reveals pragmatic reasons for the failure of Mexican-Americans to use health care systems. Welch and co-workers (11) found that lack of use of health facilities was primarily attributable to the socioeconomic status of the community rather than the socioeconomic status of the individual. In scrapping the stereotypes in favor of the facts, research turned up con-

crete reasons for the failure of Mexican-Americans to make full use of modern medicine. Language differences and the attendant difficulties, inability to pay for services, and dehumanizing experiences in the system were the principal barriers cited.

The importance of these barriers to the use of services can scarcely be overestimated in providing for efficient delivery of services within the Mexican-American community. In light of this harder evidence about the difficulties of Mexican-Americans with respect to large health bureaucracies, I will look at the sole study of hypertension among Mexican-Americans.

## Hypertension

Knowledge of circulatory disorders dates back at least to the 17th century. Although acknowledging the wealth of medical research on the etiology of hypertension, I do not intend to review it. I intend to focus on the emotional and sociocultural aspects extant in the Mexican-American population, which figure so prominently in hypertension research in other populations.

Several researchers have attempted to explain the etiology of hypertension. Large-scale epidemiologic studies have yielded statistical evidence confirming the long-held suspicion that hypertension runs in families (12). Obesity, besides being a genetically transmitted tendency, can predispose people to hypertension. Not only are obese people more likely to become hypertensive, but normal-weight hypertensives are more likely to become obese (12). Diet also plays a primary role in hypertension. Salt has been identified as an important factor in maintaining a sustained elevated level of blood pressure (12).

Not all hypertension, however, is attributable to physical characteristics. The condition has been traced to personality characteristics as well. Stress and repressed aggression can also cause hypertension (13).

All of these factors, of course, are important to a consideration of hypertension in the Mexican-American community. A combination of factors—poverty, stress, language, culture, racism, classism, fatalism, and eating habits—may be overwhelming to members of this minority. And this combination may be passed along to children who may already have a genetic predisposition to hypertension.

Researchers agree that moderate and severe hypertension are best controlled if detected early. And critical to timely discovery and control of hypertension is access to health care. The poverty and cultural conditions of many Mexican-Americans put health care out of their reach and stand in the way of early discovery and control of hypertension.

Researchers are also in agreement that social vari-

ables are linked to hypertension. Their consensus is that:

- An inverse relationship exists between socioeconomic status and hypertension. The higher the class, the lower the prevalence of morbidity and mortality.
- A significantly higher prevalence of hypertension has been noted in urban dwellers than in rural populations.
- Hypertension mortality differs between races, with both male and female nonwhites showing a greater mortality rate in every age group than whites in the same category.

Existing research indicates that hypertension is especially prevalent among urban-based minorities. A review of the extensive literature on hypertension points to the conclusion that a high prevalence of this disease is associated with ethnicity or race. In fact, hypertension among blacks is not only more prevalent than in whites; it is also more severe (14). Yet there is little research on hypertension among Mexican-Americans, and what is available does not reflect an understanding of the Mexican-American community and its culture. As pointed out in the preceding sections, investigations of health issues among Mexican-Americans must take into account inability to pay for services, the language difficulties encountered in seeking them, and the impersonality of the medical bureaucracy. The scanty research on hypertension among Mexican-Americans makes no allowance for these significant variables and has resulted in skewed perceptions of the hypertension problem among them.

The only research on hypertension among Mexican-Americans, by Stern and co-workers, is a prime example of lack of knowledge and understanding of the Mexican-American culture. The influence of income level on cardiovascular risk (15) was investigated by comparing Mexican-Americans to whites residing in the three northern California rural communities of Watsonville, Gilroy, and Tracy.

The rationale for selecting these towns was that “each of these communities contained a sizable number of Mexican-Americans” (15). The 1970 census shows Watsonville to have 14,569 Mexican-American residents; Gilroy, 12,665; and Tracy, 14,742 (15).

If account is taken of the Mexican-American population density in southern California cities and of earlier findings of a higher hypertension mortality rate for city dwellers, then the rationale of Stern and co-workers is invalid, and the study was too narrow in scope. There was no attempt to explore social variables such as stress, attitude toward hypertension, and knowledge of the accessibility to health care. A comparison between urban dwelling Mexican-Americans and whites, measuring not only the influence of income, but stress, beliefs about hypertension, and availability of health care would have been more appropriate.

The total random sample of Stern and co-workers was generated from a directory of city addresses organized by street name. Although all members of the sample were workers, no distinction was made between permanent residents and transient campesino and migrant workers. Nor did the sample systematically stratify first generation Mexican-born and second and third generation American-born members, although such distinctions may drastically affect the variables of language, education, immigration status, familiarity with services, and level of acculturation; all of these in turn affect health and use of services.

All sample participants gave a medical history and answered an extensive dietary questionnaire; measurements of height, weight, and blood pressure were taken. Other tests included fasting plasma, cholesterol and triglyceride concentrations, and a 12-lead electrocardiogram. The researchers, however, did not report whether the questionnaire could be understood by Spanish-speaking people or whether bilingual interviewers administered the tests.

The researchers concluded that they had demonstrated a difference between Mexican-Americans and whites in occupational level, education, and family income. They also observed that plasma, cholesterol levels, and blood pressure levels were the same for Mexican-Americans and whites. The cardiovascular risk factor for the Mexican-American, they concluded, was similar to that for whites of the same region; but, like other low socioeconomic groups, Mexican-Americans had a higher prevalence of obesity than persons of higher socioeconomic status, which may constitute a predisposing condition for hypertension.

Neglecting to take cultural variables into account, as in the study by Stern and co-workers, hampers efforts to discover the true scope of hypertension among the Mexican-American population. Therefore, I make these recommendations for future research in this neglected area:

1. Research must be sensitive to the values of the Mexican-American culture.
2. Samples must include first, second, and third generation Mexican-Americans if they are to be representative of this population.
3. Conduct hypertension research on Mexican-Americans in both urban and rural areas.
4. Use bilingual, bicultural interviewers to collect data to avoid language barriers and cultural bias.
5. Any assumptions the study makes about Mexican-Americans should be clearly stated.
6. Members of the studied communities should advise researchers of different life styles and values of each community.
7. Special funds should be allocated to study the prevalence of hypertension among Mexican-Americans residing in California.
8. The National Conference on High Blood Pressure Control should recognize the special needs of Mexican-Americans with hypertension and encourage research in this area.

9. Research needs to be done on the specific roles of stress, diet, and obesity in the onset of hypertension in this group.

Adhering closely to these recommendations, accounting for all variables, and employing clear, careful methodology that is free of bias, future research should focus on these three questions which I propose: (a) Is there a difference between first, second, or third generation Mexican-Americans in the incidence and prevalence of hypertension? (b) What factors hinder the Mexican-American in using hypertension services? (c) What treatment model can be employed most effectively with this population?

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